an ink jet printer. The consumable supplies which are administered in the system are, *e.g.*, toners, inks and paper sheets for a plurality of such printers communicating via an inventory tracking system. If at least one of the consumable materials reaches a projected reordering point, information is given via a user interface. An operator can then send his orders to a remote order site. That means the system of LoBiondo et al. is only based on quantity information of the needed consumable supplies.

Such a system as described in LoBiondo et al. will not be sufficient for analyzers or analyzing systems in the medical, environmental or food technologies because for at least some of the required supplies (e.g., calibrating and quality control media of the analyzer) not only quantity information is important, but also particulars with respect to their types and expiry data (step (a) of claim 1). Further, also operating materials (such as electrochemical or optochemical sensors of the analyzer) are recorded with respect of their maximum useful life in step (a) of claim 1.

As described in the present application (page 4, last paragraph), automatic recordation of data after insertion of new sensor cartridges or other supplies is effected by means of a bar code reader or a transponder system, where a memory chip is provided on or in each sensor cartridge or each supply tank. The memory chip, for instance at the container for the calibrating or quality control media, can be used for storing the current filling level (see also bar code reader 5 and transponder 6 of container 4 or BG and EL modules of inventive variant in Fig. 1)

There is no disclosure or suggestion in LoBiondo et al. regarding automatic recording of maximum useful life of hardware components of the printer or of recording expiry data of any supplies or operating materials!

With respect to step (b) of claim 1 of the present application, it is sufficient to enter the desired frequency of analysis once by an operator (for initializing a new analyzing system), then the frequency of analysis can be calculated automatically by the analyzer based on data collected in previous periods of use (see paragraph bridging pages 4 and 5). LoBiondo et al. do not show a step of calculating a frequency of analysis.

Further, also LoBiondo et al. do not disclose step (c) of claim 1, as the calculation therein is only based on quantity data (see Fig. 1, e.g. counters 24 for determining number of paper sheets remaining). The calculation in the inventive system is also based on expiry dates of supplies and on maximum useful life of, *e.g.,* sensors and so on. That means even if the calculated quantity of, *e.g.,* a calibrating solution will be sufficient, the expiry date could be lapsed and thus will cause an automated ordering procedure according step (e) of claim 1.

Examiner's Statements in Office Action

With respect to the examiner's statements in the Office Action, he states that:

"LoBiondo discloses a method for automation of the management of operating materials and/or

supplies of an analyzer or analyzing system for determining a parameter or a parameter group of a sample, being used in medical, environmental or food technology, said operating materials being tagged as to types and maximum useful lives and said required supplied being as to types, expiry dates and quantities..."

In fact, LoBiondo et al. do not disclose an analyzer for medical purposes, but rather an apparatus for reprography. And nowhere do LoBiondo et al. disclose supplies tagged with expiry dates.

The examiner also states that LoBiondo et al. disclose:

"automatically detecting and recording said types and maximum useful lives of said operating materials, and said types, expiry dates and quantities of said required supplies (column 3, lines 51-58, column 4, lines 39-49..."

However, in the first passage of LoBiondo et al. referred to by the examiner, it is only stated that quantity information is entered into a memory device of the system. In the subsequent passage, which is not cited by the examiner, it is concretely explained that data input is carried out either manually by the user or is effected through the communications module, where shipment confirmation data is received through the

communications system linking reprographic machine to the material supply location.

In the second passage which is cited by the examiner, reference is made to flowchart 6B, in which both input possibilities (manual entry by the user or data transmission from a central site) are mentioned under step S1A. Both possibilities do not correspond to the claimed method of data input by automatically reading the information tagged directly onto the supply materials.

The examiner is perhaps incorrectly evaluating an earlier version of claim 1!

The examiner asserts that LoBiondo et al. disclose:

> "entering a desired frequency of analysis, or automatic calculation of an estimated frequency of analysis from past frequencies of use of said analyzer or analyzing system (see Fig. 3, projected usage)..."

In LoBiondo et al. the starting values for computation are not prior estimates of frequencies of use or frequencies of use derived from previous use of the apparatus, but the actual values of the initial stock of supplied and information regarding amounts and times of previous use of supplied, based on which information the time up to reaching of the ordering threshold is computed.

In general LoBiondo et al. compute the ordering point in time according to the following scheme (column 3, line 51 – column 4, line 16):

1. Determination of the actual stock of supplied at the starting point by manual input of the amount or transmission of the amount from a central site and consideration of residual stocks, if any are present (= starting amount).

2. Determination of the amount of supplied used over a certain time (starting point –now).

3. Interpretation of the decrease in supplies based on "real" values for the future.

4. Ordering of supplies when the interpolated decrease falls below a predetermined threshold.

According to the present invention the ordering point is determined not on the basis of the actually present stock of supplies and an extrapolated decrease, but solely on the basis of the present initial stock and an already known and determined frequency of use (estimated or based on previous experience). The inventive method is as follows:

1a. Determination and input of a desired frequency of use based on previous measuring intervals.

1b. Determination of type, amount of expiry dates of supplies.

2. Calculation of the decrease in supplies solely from the information obtained under 1a and 1b, without taking into account the actually used amount or an interpolated future decrease.

3. Determination of the ordering point from these data.

The examiner asserts that LoBiondo et al. disclose:

"automatically calculating an amount of said operating materials and/or supplies required per unit of time, based on data obtained in steps (a) and (b) (column 3, line 67 to column 4, line 4)..."

However, as noted above, this is simply not at all true!

The examiner asserts that LoBiondo et al. disclose:

"determining an optimum point in time for ordering more of said required operating materials and/or supplies, taking into account the maximum useful lives of said required operating materials, the expiry dates and quantities of said required supplies (column 4, lines 4-9, 39-49)..."

However, nowhere is LoBiondo et al. (including the cited passage) is it taught that useful lives or expiry dates are used in the determination of the optimum ordering point. LoBiondo et al. mention only the quantity of the required supplies.

The examiner asserts that LoBiondo et al. disclose:

"automatically ordering of said operating materials and/or supplies via a device for remote data transmission (column 4, lines 17-23)..."

This step is disclosed in column 5, lines 8-20.

The examiner comments that,

"LoBiondo does not explicitly disclose an automatic detecting and recording, automatically calculating an amount but it is well settled that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which is accomplished the same result. In *re Rundell*, 18 CCPA 1290, 48 F.2d 958, 9 USPQ 220.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an automatic means for something mechanical or manual because it would provide a faster approach of determining the expiry date and quantities of sample up for replacement."

Here it obviously is the examiner's intention to qualify the automated reading of supplies data directly off the supplies themselves as an obvious and non-inventive idea. Based on LoBiondo et al. a person of ordinary skill in the art would <u>not</u> be led to consider this automated procedure step of the present invention and to <u>obtain expiry dates and</u>

useful lives of the supplies in addition to quantity information, since in the technological area of LoBiondo et al. this information has no relevance. Thus one of ordinary skill in the art would not be led to the subject of claim 1, even if the manual input of quantity is replaced by automated input.

The examiner's prior art rejection based on LoBiondo et al. must be withdrawn.

B. The examiner has rejected claims 5-18 and 21-30 under 35 U.S.C. §103(a) as being unpatentable over LoBiondo et al. in view of Sano et al. The examiner states that,

> "LoBiondo et al. do not teach an analyzing system for determining medical sample parameters but Sano et al. teach a system for determining medical sample wherein said connection for remote data transmission is provided in a computer central unit of said analyzing system (Fig. 1), the analyzer is coupled to the central unit as claimed and can be removed to be inserted in a different position (column 4, lines 42-48), said analyzing system is capable of being provided with a sample bus to exchange the samples to be testing between the analyzer and the control unit (column 4, lines 1-13)."

Sano et al. disclose a liquid sample automatic analyzer having a test strip handling device and a control unit to control the handling of the test strips. Sano et al. do not disclose automatic recording of type and maximum useful life of operating materials used, and of types, expiry dates and quantities of the required supplies (see step (a) of claim 1). Also steps (b) to (d) of claim 1 are not disclosed and there is no hint of automated ordering of the operating materials and/or supplies via a device for remote data transmission.

The examiner comments that,

> "Neither LoBiondo et al. nor Sano et al. expressly teach exchanging washing, calibrating and quality control media between analyzer and the control unit but this feature is obvious in the medical field because the system as taught by Sano et al. intrinsically would have to do at least some washing, calibrating and quality control media in order to have any kind of exchange between these two elements and also to ensure the reliability of the equipment in use to perform a certain test."

Sano shows an analyzer using a test-strip approach, where individual test-strips are introduced into the samples to be tested, which are contained in test tubes. This functional principle corresponds to an automated one-time test using test-strips, where normally no washing,

calibrating or quality control solutions are needed. The examiner's statement is therefore erroneous.

The examiner also comments that,

> "It would have been obvious to one of ordinary skill in the art to utilize the automatic analyzer as taught by Sano et al. into the system of LoBiondo et al. because it would enable measurement to be performed with simple mechanisms and good reproducibility."

A combination of LoBiondo et al. and Sano et al. would not lead to the subject of claim 19, since neither Sano et al. nor LoBiondo et al. suggest a "device for automatic recording of type and maximum useful life, ... quantity, expiry dates ... or operating material", which is an essential feature of claim 19.

Examiner's Responses to Arguments

In responding to applicants' previous arguments, the examiner states that,

> "(a)pplicant argues that there is no hint or any suggestion in LoBiondo for automatic recording maximum useful life of hardware components of the printer or of recording expiry data of any supplies or operating materials. In response to Applicant's arguments, a new rejection under 103 is being used

in order to address the "automatic" issue the Applicant mentions."

However, the examiner's comments are incorrect as discussed above.

The examiner states that,

"(f)urthermore, Applicant argues that LoBiondo does not show a step of calculating a frequency of analysis and contrary to applicant's arguments, Fig. 3 of LoBiondo shows a projected usage that can be determined by calculating the frequency analysis as claimed."

However, the examiner's assertion is incorrect as noted above.

Finally, the examiner asserts that,

"(a)pplicant's arguments about Sano not disclosing automatic recording of type and maximum useful life of operating materials used, and of types, expiry dates and quantities are moot in view of LoBiondo (see rejection above). Applicant's arguments are deemed unpersuasive, claims 1-32 remain rejected."

The examiner is again incorrect. Neither LoBiondo et al. nor Sano et al. describe the recording of <u>expiry dates</u>. Thus, in both patents this essential characteristic is not mentioned or suggested.

CONCLUSIONS

It is asserted that claims 1-32 define novel and patentable subject matter.

A prompt passage to issuance is requested.

Respectfully submitted,

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